

REMARKS

Claims 1 and 14-23 are pending in the present application. Claims 1, 18, and 19 have been amended. No new matter has been added to the application. Reexamination of the application and reconsideration of the rejections and objections are respectfully requested in view of the above amendments and the following remarks, which follow the order set forth in the Office Action.

Rejections Under 35 U.S.C. § 112

The Office Action rejected claims 1 and 14-23 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants respectfully traverse.

With regard to claim 1, the Office Action states that there is allegedly insufficient antecedent basis for the limitations “the other parts of the first container” in lines 12 and 15 and “the other parts of the second container” in lines 14 and 17. Applicants have amended the limitation “the other parts of the first container” in line 12 to be “other parts of the first container”. As such, the phrase as originally drafted in line 15 has antecedent basis based on the amended phrase in line 12. Additionally, Applicants have amended the limitation “the other parts of the second container” in line 14 to be “other parts of the second container”. As such, the phrase as originally drafted in line 17 has antecedent basis based on the amended phrase in line 14. Based on the foregoing, Applicants respectfully request reconsideration and withdrawal of the instant rejection.

With regard to claims 18 and 19, the Office Action states that there is allegedly insufficient antecedent basis for the limitation “the vertical” in line 2 of each claim. Applicants have amended the phrase “the vertical” in each claim to be “vertical”. Based on the foregoing, Applicants respectfully request reconsideration and withdrawal of the instant rejection.

With further regard to claim 1, the Office Action states that the claim allegedly provides several structural limitations couched in intended use language. The Office Action states that the relative positioning of the first and second orifices with respect to other parts of the respective first and second containers are defined by the container’s orientation in the first and second

positions. If, in fact, this statement of the Office Action is true, such definition of the relative positioning of the first and second orifices with respect to other parts thereof does not couch the structural limitations in terms of intended use language and render the claim indefinite, as asserted by the Office Action.

According to the MPEP, apparatus or product claims cover what a device *is*, not what a device *does*. MPEP § 2114 quoting *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 844, 847 (Fed. Cir. 1990) (emphasis in original). Applicants assert that claim 1 is a product claim that defines the claimed reaction chamber in terms of its structural characteristics, i.e., what it *is*. Describing the spatial relationship of structural elements in terms of their location, spacing, orientation, and/or direction in relation to one another does not cause a claim to no longer be defined in terms of structural characteristics. The description of spatial relationships does not remove the structural nature of the claim or import intended use language into a claim but rather merely further defines the claimed product. As such, regardless of how the claimed reaction chamber is used, the structural characteristics and spatial relationships recited in claim 1, in particular the relationships recited in the first position and the second position sections of the claim, are not dependent on the use of the reaction chamber, i.e., the structural elements of the reaction chamber relate to one another in the same manner regardless of how the reaction chamber is being used.

The Office Action cites *Ex Parte Masham*, 2 U.S.P.Q. 2d 1647 (Bd. of Pat. App. & Inter. 1987), in support of this rejection quoting “a claim containing a ‘recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus’ if the prior art apparatus teaches all the structural limitations of the claim.” *Id.* While Applicants do not argue the soundness of the legal concept being quoted in *Masham*, this legal concept seems to be more related to a §102 novelty or a §103 obviousness rejection. The quotation discusses claim differentiation over a cited apparatus, i.e., art rejections. Applicants assert that the claimed reaction chamber is novel and nonobvious over the cited references, and related arguments will be discussed in greater detail below. However, the particular *Masham* quote seems to be misplaced in a §112 rejection.

Nonetheless, Applicants note that the *Masham* facts can be distinguished from the instant application. In *Masham*, the claim at issue included the limitation of a “means for mixing [that is] stationary and completely submerged in the developer material.” The patent applicant used

this functional limitation as the basis for arguing that the cited reference did not anticipate the claim. The cited reference disclosed an apparatus satisfying the structural requirements of the claim. However, in the cited reference, the means for mixing was depicted as only being partially submerged in the developer material as opposed to being completely submerged, as recited in the *Masham* claim. Because the *Masham* claim included a recitation with respect to how the claimed apparatus was to be used and because the applicant attempted to differentiate his claim over the cited reference using the recitation of intended use, the Board reasoned that the intended use did not serve to differentiate the *Masham* claim from the disclosure of the cited reference. In contrast to the facts of *Masham*, claim 1 is structurally distinguishable from the references cited in the Office Action, in particular, JP 60-176938. As indicated above, arguments related to patentability over the cited references will be discussed in greater detail below. Based on the foregoing, Applicants respectfully request reconsideration and withdrawal of the instant rejection.

Rejections under 35 USC § 102

Claims 1, 14, 15, 20, 21, and 22 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) being allegedly obvious over Mitachi et al., JP 60-176938 ("Mitachi"). Applicants respectfully traverse.

Claim 1 relates to a reaction chamber comprising a first container consisting essentially of a wall delimiting a volume which is substantially closed, apart from at least one first orifice formed in the wall and a second container consisting essentially of a wall delimiting a volume which is substantially closed, apart from a second orifice connecting the second container to a first end of a conduit having an open second end. The first and second containers are integral. The second container and the conduit are integral. The open second end is inside the first container. The chamber is capable of occupying two positions, namely, a first position in which the first orifice is in an upper position relative to other parts of the first container, and the second orifice is in a lower position relative to other parts of the second container, and a second position in which the first orifice is in a lower position relative to the other parts of the first container, the second orifice being in an upper position relative to the other parts of the second container, and the open end of the conduit is aligned with and at a distance from the first orifice. The configuration of the chamber is such that when the chamber is rotated in a first predetermined

direction from the first position to the second position, any liquid contained in the second container remains in the second container without being able to flow through the conduit to said open end, and when the chamber is rotated in a second predetermined direction, from the first position to the second position, any liquid contained in the second container flows through the conduit and reaches the open end.

Mitachi appears to disclose an apparatus for fabricating an optical fiber preform comprising core and clad glass. The Office Action cites the apparatus of Figures 4A-D with particular reference, so Applicants remarks will be directed to the apparatus of Figures 4A-D. OA, pg. 5. The Office Action has an annotated copy of Fig. 4A, and Applicants will use the annotated Fig. 4A in responding to the rejection. In addition, Mitachi fails to disclose the apparatus of Fig. 4 in any other position than that shown, thus Applicants will base these remarks upon the belief that the apparatus of Fig. 4 may be used in positions similar to those shown for the apparatus of Figs. 1 and 2, i.e., a preform may be formed by turning the apparatus of Fig. 4 on its side and forming a preform with the conduits or casting nozzles designated with reference numerals 16 and 17. With that in mind, Applicants designate the position shown in Fig. 4 as a first position and a position wherein the apparatus of Fig. 4 is on its side as a second position for purposes of these remarks.

With regard to the apparatus of Mitachi, when the apparatus is in a first position (as shown in Fig. 4), the second orifice (as designated by the Office Action) is not in a lower position relative to other parts of the second container, as recited in claim 1. In fact, in the first position, the designated second orifice is actually in an upper position relative to all of the other parts of the second container, i.e., the second orifice is not in a lower position relative to any other parts of the second container. Further, when the apparatus is in a second position, the designated second orifice is not in an upper position relative to other parts of the second container, as recited in claim 1. In fact, if anything, in the second position, the designated second orifice is actually in a lower position relative to the other parts of the second container.

Further, the apparatus of Mitachi fails to disclose the limitation that when the chamber is rotated in a first predetermined direction from the first position to the second position, any liquid contained in the second container remains in the second container without being able to flow through the conduit to the open end, and when the chamber is rotated in a second predetermined direction, from the first position to the second position, any liquid contained in the second

container flows through the conduit and reaches the open end. Regardless of the direction of rotation of the apparatus of Mitachi, any liquid contained in the second container 12 is going to flow through the casting nozzle 16 to an open end when the apparatus is moved from the first position to the second position. Thus, Mitachi fails to disclose an apparatus wherein liquid contained in the second container remains therein when the apparatus is rotated in a predetermined direction from the first position to the second position.

Based on the foregoing, Applicants assert that Mitachi fails to disclose, either explicitly or inherently, each and every limitation of claim 1. Further, as can be seen in Figures 1 and 2 of the present application, the first orifice and the second orifice are oppositely disposed in relation to one another with respect to the reaction chamber. As such, the designation of which orifice (the first or second) occupies a generally upper position relative to the reaction chamber as whole changes or flip-flops depending on the position in which the reaction chamber is disposed. That is, in the first position, the first orifice is generally disposed in an upper position relative to the reaction chamber as a whole; and in the second position, the second orifice is generally disposed in an upper position relative to the reaction chamber as a whole. Thus, the designation of which orifice is in the upper position relative to the reaction chamber changes depending on the position of the reaction chamber. In contrast, in Mitachi, the designated first and second orifices are positioned near one another such that their location with respect to the apparatus as a whole is the same regardless of the position of the apparatus. Thus, when the apparatus is in the first position, the first and second orifices are both in a generally upper position relative to the apparatus as a whole; and when the apparatus is in the second position, the first and second orifices are both in a generally lower position relative to the apparatus as a whole.

Further still, given the apparatus of Mitachi and the way in which a preform is fabricated using the device, as disclosed in the English language abstract, Applicants assert that the claimed reaction chamber is not only novel over the apparatus of Mitachi but is also not obvious in view of the apparatus of Mitachi. According to the MPEP, "if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious." MPEP § 2143.01(VI). With respect to Mitachi, the way in which the Mitachi apparatus fabricates optical fiber performs would have to be completely altered in order for the apparatus to be configured as recited in claim 1. The distinctions between the claimed reaction

chamber and the apparatus of Mitachi are not “minor structural distinctions” as asserted by the Office Action, but rather major structural distinctions that lead to major distinctions in the way in which the device is used to fabricate optical fiber preforms. As such, one of ordinary skill in the art would not find it obvious to alter the apparatus and fabrication method of Mitachi to move to a completely different device and fabrication method as recited in claim 1. Based on the foregoing, Applicants assert that the reaction chamber of claim 1 is not anticipated by and is not obvious over Mitachi. As such, Applicants respectfully request reconsideration and withdrawal of the instant rejection.

Rejections under 35 USC § 103

The Office Action rejected claim 23 as being allegedly unpatentable over Mitachi in view of U.S. Patent No. 5,779,757 to Sanghera (“Sanghera”). Applicants respectfully traverse. The Office Action cites Sanghera for disclosing that the dual chamber apparatus thereof is preferably constructed from quartz glassware or silica. Applicants submit that even if Sanghera discloses that which the Office Action asserts that it discloses, such disclosure is not sufficient to make claim 23 obvious over Mitachi in view of Sanghera. As discussed in detail above, claim 1, from which claim 23 depends, is not obvious over Mitachi. Thus, even if Sanghera discloses everything that the Office Action asserts that it discloses, such disclosure is not sufficient to overcome the failure of Mitachi to make obvious the claimed relative positioning of the second orifice in the first position and the second position, as recited in claim 1 and incorporated into claim 23. Based on the foregoing, Applicants respectfully request reconsideration and withdrawal of the instant rejection.

Allowable Subject Matter

The Office Action states that claims 16 to 19 would be allowable if rewritten to overcome the rejections under 35 USC 112, second paragraph, and to include all of the limitations of the base claim and any intervening claims.

Conclusion

For the foregoing reasons, claims 1 and 14-23, which are dependent on claim 1, are considered to be allowable. A Notice to this effect is respectfully requested. If any questions remain, the Examiner is invited to contact the undersigned at the number given below.

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Respectfully submitted,

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